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ENCLOSURE C

IMPACT OF A SUCCESSFUL AIR ATTACK AGAINST THE DRV PETROLEUM SYSTEM

A. GENERAL

- 1. (S) Destruction of the DRV bulk POL storage system would accomplish two functions: (1) destruction of substantial portions of the POL now in stockpile, a "one-time" effect, and (2) important degradation of the storage and distribution system, which would have long-term effects until an adequate dispersed substitute system could be improvised. In particular, loss of the only sea terminal facilities at Haiphong would impose substantial early degradations. Make-shift operations to handle the normal deep-water tanker deliveries, which arrive in shipments of over 10,000 MT, would probably entail holding tankers in port for long periods for offloading into assorted small capacity carriers, since only limited bulk POL lighterage is available. This tanker turn-around extension would itself impose difficulties in the inadequate Bloc tanker fleet. Efforts to increase POL receipts by road and rail from China are possible but costly, would require large commitments of tank cars and trucks (the latter adding further to POL consumption), and are vulnerable to an adequate armed reconnaissance program.
- 2. (S) Successful attack on this system would be felt very quickly in DRV military operation, principally military logistic and infiltration transport. The flow of supplies to communist military forces, both in and through the country, would be greatly impeded since POL-fueled vehicles (both road and waterway) are the principal carriers. The primarily agrarian economy would be affected only to a secondary degree. Its small industrial sector appears to have only a relatively small dependence upon either POL or POL-fueled transport and POL powered transportation systems account for only some 45 percent of the total ton-kilometer movement of all civilian commodities in North Vietnam. The most vital civilian commodities, for example, food, appear capable of being handled adequately by substitute means. POL consumption by private individuals, estimated at Enclosure C

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0.2 gallons per year, appears to be an area of very small potential effect.

B. EFFECTS ON TRANSPORTATION SYSTEMS

- 3. (S) Intelligence shows that DRV requirements for motor vehicles are increasing. Some 2,000 additional were received in 1965 (in comparison to some 800 lost to air attacks), and they have requested 2,700 Soviet and over 1,000 chinese and European satellite vehicles for 1966. This apparent increased requirement over the current estimated 10,000 - 12,000 inventory probably results from the interdiction program which has imposed the need both for increased ton-miles of movement by truck, and for increased numbers of trucks to accomplish a given ton-mile movement. In addition, the DRV has ordered tractors, graders and other construction equipment as well as over 3,000 small motors for various purposes of which 2,200 are small diesel motors. Among the most effective ways to extend the influence of interdiction (especially so far as concerns its influence on infiltration), and overcome the introduction of these additional vehicles and other POL consuming motors, is to impair their supply of POL.
- 4. (S) Effects on various components of the transportation system is discussed below:
 - a. Road Transport. DRV POL-powered road transport is entirely state-controlled. Current estimated motor vehicle fuel requirements are about 38,000 MT per annum, or about 25 per cent of the total sonsumption. Attack of the POL system will have substantial impact on POL-powered road transport.
 - b. Water Transport. The DRV motorized inland and coastal waterway fleet is estimated to number not less than

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6,000 craft with an aggregate dead weight tonnage (load carrying capacity) of 120,000 tons and a total lift capability of more than one million ton-miles per day. This capability presents at best a most difficult interdiction target but is subject to substantial degradation through reduction of its POL supply, estimated at some 36,000 MT per year or 24% of national consumption. POL requirements are about 25,600 MT of gasoline and 11,000 MT of diesel fuel. (There is, in addition, a large number of non-powered or sail-powered small craft, which could be diverted to some but not all tasks of the POL-powered craft).

c. Rail Transport. No known diesel locomotives are in operation in North Vietnam. Thus railroad usage of petroleum products consists of lubricants which are normally packaged and shipped overland.

C. EFFECTS ON MILITARY CAPABILITIES

- 5. (S) The extent to which the substantial military dependence on POL (60% of national comsumption) would be influenced by attack on the system would depend upon the extent to which necessary POL could be furnished on a priority basis from surviving assets, or acquired by other means. The effects on each service are discussed separately below.
 - a. Ground Forces. Operating reserves in military units and installations would support present levels of activities for an estimated ten to fourteen days. By curtailing all but absolutely essential activities, this period could possibly be extended to approximately 45 60 days. Areas most seriously affected by a POL shortage are listed below:
 - (1) Transportation of equipment and logistic support areas not served by rail (including infiltration support).
 - (2) Military engineer construction and repair of roads and bridges.
 - (3) Mobility of forces, to include movement of artillery and other heavy equipment.
 - (4) Diversion of military personnel from military duties to become supervisors or laborers and cargo carriers.

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- b. Navy Probably no significant impact. Total requirements are small, and limited operations could be continued for two to three months from reserve stocks held by the Navy. Naval units could themselves handle their own resupply requirements from CHICOM ports or by other means.
- c. Air Force It is estimated that the DRV requires approximately 11,700 MT of aviation fuels per year or about 8% of national consumption to operate the current aircraft inventory at present operating levels. Impact of POL attack would not be felt immediately, as airfields normally maintain substantial fuel reserves, and resupply at the above relatively low expenditure rates could probably be improvised. If airfield POL storages contain a normal amount of fuel, on-base POL capabilities to support air operations are estimated to be as follows:
 - (1) Jet fighter operations from Phuc Yen could be supported from airfield stocks at a sortie rate of 15 aircraft per day for 96 to 112 days.
 - (2) Transport operations (IL-14 and IL-2) from DRV airfields could probably be supported from airfield stocks at a rate of 10 maximum range sorties per day for 90 days.
 - NOTE: Estimated time frames for fighter and transport operations could be extended by curtailing non-essential flying activity.
- 6. (S) Supply support for communist forces in Laos and South Vietnam might cause rationing of sufficient POL from available supplies to maintain these operations, but the overall flow of supplies south would almost certainly be impeded. The DRV would be forced to curtail all POL-powered activities except those deemed most vital, and resort to more extensive use of porters, animal transport, and non-powered water craft for movement of supplies. This would considerably reduce the capability to move large units or quantities of equipment.

Improvised, dispersed POL systems would be required and would be provided as rapdily as feasible (a matter requiring at best many months) so that the effects, while important would not be permanent.

D. EFFECTS ON THE ECONOMY

7. (S) Industry and agriculture consume only small quantities of POL except for lubricants. Several coal-fired electric power plants maintain small stocks of POL for lighting off boilers, and as coolants for transformers. Tractors used on state farms number about 1,000 15-horsepower units, and only minor quantities of POL are required for other farm activities. Much of the available supplies of kerosene are required for household use, but total consumption of kerosene in the country was only about 10,000 MT in 1964 or less than 0.2 gallons per capita. Use of petroleum by the railway systems is limited to grease and lubricants.

E. PROBABLE POLITICAL, SOCIOLOGICAL AND PSYCHOLOGICAL EFFECTS

- 8. (S) Successful attacks against POL facilities would probably be received with mixed feelings by the populace. Politically, however, such strikes would not be likely to produce any significant effect. This is predicated on the relatively small quantities of POL products actually consumed by civilians. Moreover, after more than ten years of communist rule, an extensive and effective security apparatus, and subsistence living, the average peasant has become inured to hardship, privation and strict political subservience. contrast, military personnel, as well as hard-core communist cadres, would probably react more positively. They could, for example, be expected to view expanded air strikes as a further pretext for tightening party discipline and political control of the masses. Nonetheless, there is little doubt that successful air strikes would result in appreciable popular concern and lowering morale of the civilian populace.
- 9. (S) In summary, the direct impact of such strikes would probably be relatively minor on the general populace,

but would undoubtedly work some hardship and inconvenience on that portion heavily dependent on POL, either for a livelihood or for the distribution of essential goods and services. In contrast, the impact on the military would undoubtedly be more pronounced and serious, not only in the increased difficulty of obtaining minimum necessary POL for military operations, but primarily in the reduction of essential transportation capabilities necessary for military logistic and infiltration support operations.